CDPH Response to Final Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, CA Field Change Request Form 006, received on 9/14/2021 and 9/20/2021

1) **Section Reason for Change:** *"The measurement uncertainty resulted in a discussion with the Navy and regulatory agencies to evaluate method improvements to lower uncertainty and the DLC..... This preparation method for Sr-90 uses a larger aliquot (2.5 grams) with HNO3/HCl digestion and Eichrom resin (Sr Resin) separation, with a 14-day ingrowth and gas flow proportional counting (GFPC) detection."*

   CDPH agrees the larger aliquot size and the longer ingrowth period would be helpful to lower the uncertainty value of Strontium analytical results. Furthermore, CDPH believes it is more vital to set an upper limit on the uncertainty value of individual Strontium analysis in order to ensure the individual result can be compared directly with Navy's established remedial goal (RG), without ambiguity. CDPH requires that the laboratory to optimize multiple factors, including but not limited to aliquot size, ingrowth time, count time, chemical yield etc., that can potentially lower the uncertainty value. That way the soil sample result (concentration +/- uncertainty) are either below or above the established RG.

   CDPH also recommends applying this method of limiting uncertainty value to all the Radionuclides of Concern (ROCs) concentration analysis for Hunters Point Parcel G Rework.

2) **Section Reason for Change:** *"Previous samples will be reanalyzed using this sample preparation."* CDPH supports Navy's proposal of reanalyzing previous samples with the sample preparation described in this FCR-006. However, the data collected with modified sample preparation and analysis methods described in this FCR-006 will not invalidate the original data set.

3) **Section Reason for Change:** *"In addition to the changes in analytical method discussed above in this FCR, to fully comply with the requirements outlined in WP Section 5.3.2 and confirm sample results that indicate a potential area of elevated activity, confirmation of sample results with elevated activity will include the following:*
   - *Sr-90 results will immediately (to the maximum extent practical) be recounted by the laboratory.*
   - *If the recounted sample is below the RG, then the initial result will be considered a false positive.*
   - *If a recount of the sample is not possible, or the recount sample result exceeds the RG, two (2) additional aliquots will be collected from the sample and analyzed for Sr-90.*
   - *If the results of both of the additional aliquots are below the RG, then the original result will be considered a false positive. If either one of the two additional aliquot results is above the RG, then the sample will be considered an exceedance."*

   CDPH does not concur with the steps listed in the bullet points as a method of "confirmation of sample results with elevated activity". These steps described in the bullet points are not consistent with "a point-by-point comparison with the statistically-based RG" described in

Section 3.1 in the Final Parcel G Removal Site Evaluation Work Plan, Former Hunters Point Naval Shipyard, San Francisco, CA (WP). CDPH strongly recommends completely removing the section discussing the confirmation of sample results with elevated activity.

4) **Attachment:** SOP No. ST-RC-0058, Rev. 7, Page 2 of 15: *"This SOP is based on ASTM Method C1507-07 and Eichrom Method SRW01."* ASTM method C1507-07 is designed for the analysis of 10 grams of soil, while FCR-006 proposes to analyze 2.5 grams. Please explain the reason for proposing a different aliquot weight in the FCR-006 compared to what is recommended in ASTM Method C1507-07.